AWIPS APPLICATION INSTALLATION INSTRUCTION NOTE 3
(for Electronics Systems Analyst)
Maintenance, Logistics, and Acquisition Division
W/OPS12: JCS

SUBJECT	:	IFPS 14.2 Full Software Installation Instructions
PURPOSE	:	To provide instructions on downloading and installing the IFPS 14.2 (full) software upgrade.
PREINSTALLATION REQUIREMENTS	:	AWIPS software release OB1 and IFPS 13.x, at minimum, must be installed prior to beginning the IFPS 14.2 installation. In addition, your site's `localconfig.py` file **MUST** be updated before you attempt to install IFPS 14.2. Please follow the instructions provided.
EFFECTIVITY	:	All AWIPS WFO configured (operational and non-operational) sites must install this release.
ESTIMATED TIME REQUIRED	:	Approximately 2.0 hours (full install).
EFFECT ON OTHER INSTRUCTIONS	:	None.
AUTHORIZATION	:	The authority for this modification note is Request for Change AB574.
VERIFICATION STATEMENT	:	The IFPS 14.2 (full) installation procedures were tested and verified on OST's NHOW test platform, in Silver Spring, MD and NGIT's TBDW platform, in McLean, VA.
SECURITY LEVEL	:	root
TECHNICAL SUPPORT	:	For questions or problems with this software application, please contact the Network Control Facility (NCF) at (301) 713-9344. For questions on this installation note, please contact Jagdish Sharma at (301) 713-1833 x128.
INSTALLATION SUPPORT	:	For questions or problems regarding IFPS installation instructions, please contact the MDL IFPS Site Support Team (SST) at (301) 713-9362 x325, 326, or 327.

GENERAL:

The IFPS 14.2 (full) installation upgrade kit includes 1 CD (labeled "IFPS 14.0 Full") and a cover letter.

NOTE: Refer to the following Web address for IFPS 14.2 (full) Installation instructions, release notes, user's guide, additional site support information, and other IFPS-related material:

http://www.nws.noaa.gov/mdl/icwf/IFPS14.2Full/IFPS14.2Full.html

IFPS 14.2 Delivered Functionality

- **New Weather Types:** MDL and FSL worked together to make the following new weather types available in IFPS:

  - Freezing Fog (ZF)
  - Ice Crystals (IC)
  - Ice Fog (IF)
  - Volcanic Ash (VA)
  - Waterspouts (WP)

- **Ice Pack Phraseology in Marine Forecasts:** Within IFPS, a forecaster may now define ice coverage grids. These grids are summarized and used to differentiate between a Small Craft Advisory and a Brisk Wind Advisory. The criteria for automatically inserting headlines for these hazards are configurable.

- **New ID for Frequent Gusts:** Within IFPS, the two-letter identifiers for both fog and frequent gusts was FG. To eliminate this ambiguity, MDL changed the two-letter identifier for frequent gusts to WG.

- **Grid Configuration Available From ifpServer:** MDL changed any remaining IFPS applications from dependence on a file-based scheme used to determine the configuration of the local grid to a scheme that allows these applications to query this information from the ifpServer. In other words, the ifps_env.ccc file now includes all the information needed from the icwf_site.ccc file.

- **Number of Periods in Temp/PoP Table Now Configurable:** The ZFP Temp/PoP table now includes additional periods to facilitate a wider range of ZFP Temp/PoP configurability.

- **Digital Databases Export Capability:** IFPS now has Service Backup - Phase II digital database ***export capability***. This capability allows IFPS to ***export*** sites' Forecast and Official digital databases ***to*** the Central Server in support of "warm service backup."

NOTE:	At present, Service Backup - Phase II should only be attempted with another IFPS14 site (i.e., Service Backup - Phase II is not currently backward compatible).

- **Digital Database Import Capability:** IFPS now has Service Backup - Phase II digital database ***import capability***. This capability allows IFPS to ***import*** sites' Forecast and Official digital databases ***from*** the Central Server in support of "warm service backup."

NOTE:	At present, Service Backup - Phase II should only be attempted with another IFPS14 site (i.e., Service Backup - Phase II is not currently backward compatible).

- **Editing of Static Local Effects:** IFPS can automatically unload static Local Effects (LE) from grids. Additionally, should forecasters wish to use LE information created from previous forecasts, the LE framework may now be preserved from cycle to cycle to obviate forecasters having to recreate the LE information.

- **Encoding of Additional Grid Projections by "prepare_grib2" Application:** In addition to encoding Lambert Conformal grids, the 'prepare_grib2' application now also encodes Mercator, Polar Stereographic, and Lat/Lon grid projections for OCONUS AWIPS sites.

- **Floating Elements Within NDFD:** MDL modified the GRIB2 encoder to handle floating elements (e.g., 6 HR Floating PoP) available in the NDFD.

- **GFE:** For descriptions and details regarding GFE enhancements available in IFPS14.2, please visit the Enhancements section at:

  http://www-md.fsl.noaa.gov/eft/ifps14doc/onlinehelp/CHANGES_BUGS_FIXES_HIGHLIGHTS.html

  and GFE Release Notes section at:

  http://www-md.fsl.noaa.gov/eft/ifps14doc/onlinehelp/README.html

  - GFE enhancements are in the following areas:

    - User Interface Enhancements
    - General GFE Enhancements
    - Smart Initialization Enhancements
    - Smart Tool Enhancements
    - Daily Forecast Critique Enhancements
    - Intersite Coordination Enhancements

    - Text Product/Infrastructure Enhancements
    - ifpIMAGE Enhancements
    - ifpServer Enhancements

- GFE bug fixes are in the following areas:

    - User Interface Bug Fixes
    - General GFE Bug Fixes
    - Smart Initialization Bug Fixes
    - Smart Tool Bug Fixes
    - Daily Forecast Critique Bug Fixes
    - Intersite Coordination Bug Fixes
    - Text Product/Infrastructure Bug Fixes
    - ifpIMAGE Bug Fixes
    - ifpServer Bug Fixes

GENERAL PRE-INSTALLATION AND INSTALLATION GUIDELINES:

- NCF upgrade support is available from 7 a.m. to 7 p.m. EDT, Monday through Thursday.

    - OCONUS sites requiring upgrade assistance outside the set support hours on Thursdays, must coordinate through their AWIPS regional focal point. If the NCF is not advised ahead of time, they will assume a scheduled OCONUS site will follow the set support hours.

    - All IFPS 14.2 upgrades at CONUS sites must be completed by September 18, 2003.

Critical Pre-installation Requirements

This section highlights actions that **MUST** be completed before beginning the IFPS14.2 installation.

- **localConfig.py Incompatability**

  One very significant change in the IFPS14 GFESuite is the change in the formatting of the `localConfig.py` file. The format has been tightened to prevent problems that have been observed over the last several years. The majority of IFPS13 `localConfig.py` files will not work with the IFPS14 ifpServer. The IFPS team has taken your configuration files as of July 16th and converted them to the new format. The modified files are available at the following web page:

  http://www-md.fsl.noaa.gov/~mark/localconfig/configuration.html

  On this web page is a link to your updated set of `etc/SITE` configuration files, a link to a differences file (so you can easily tell what was changed), and some comments (to describe what was changed).

  Before you attempt to install IFPS16.2, look at the web page, download the tar file with the updated configuration, look at your differences file, and read the comments. You must correct your `localConfig.py` prior to the IFPS14.2 installation.

  Your original configuration was pulled from your site on Wednesday morning July 16, 2003.

  Before you install the updated files:

  - Review the differences file for your site. This file shows all differences made between your files (as of July 16) and the modifications to make the files run on both IFPS13 and IFPS14.
  - Review the comments on the web page for your site. That will describe any problems that were observed during the conversion of your configuration files.
  - If you have ANY questions about what was converted or why it was converted, contact the Customer Support Team (CST) before you install IFPS14.2. It is essential that you understand the changes being made, as you will be ultimately responsible.

Critical Pre-installation Requirements (Continued)

- **localConfig.py Incompatability (Continued)**

  After you download the file, follow these instructions for updating your files:

  1. Check the modification date of the files currently on `lx1: /awips/GFESuite/etc/SITE`. If all files (not counting *.pyc and *.pyo) are older than July 16, then it is probably safe to install the entire updated package onto your system. If there are files that have been updated on July 16 or later, then you need to carefully look at what changes have been made in order to consolidate those changes into the updated files.

  2. Place your downloaded file, named similar to `SITE_`*`xxx`*`.tar`, where *`xxx`* is the site ID, into the `/awips/GFESuite/etc` directory on LX1 as user `ifps`.

  3. To install, use `tar xvf SITE_`*`xxx`*`.tar`, where *`xxx`* is the site ID.

  4. The files that were updated will overwrite your existing files.

  5. You will want to restart the ifpServer after updating the files.

  6. Remove the downloaded tar file from the `lx1: /awips/GFESuite/etc` directory.

  7. Check your configuration (on IFPS13) by going to lx1, as any user, and issuing the following commands, which should show that there are no errors:

     ```
     cd /awips/GFESuite/bin
     runIFPServer -n
     ```

- Refer to the following web address for the latest IFPS 14.2 (full) installation instructions:

  http://www.nws.noaa.gov/mdl/icwf/IFPS14.2Full/IFPS14.2Full.html

Noted Problems and Workarounds

Section II of the IFPS14.2 Release Notes highlights special problems and workarounds for IFPS14.2. Please review this section of Release Notes for additional "news".

- **Phase II IFPS Service Backup: Warm Service Backup**

  At present, for Phase II: Warm Service Backup **should be attempted ONLY with another IFPS 14 site** . Service Backup - Phase II is not currently backward compatible.

- **CWA Change "Slash Code" Fix**

  The **CWA Change "Slash Code" Fix** information is available online at:

  http://www.nws.noaa.gov/mdl/icwf/IFPS14/zncode_fix.html

REPORTING INSTRUCTIONS:

Report the completed modification using the Engineering Management Reporting System (EMRS) according to the instructions in NWS Instruction 30-2104, Maintenance Documentation, Part 4, Appendix F. Include the following information on the EMRS Report:

Block #	Block Type	Information
5	Description	Install IFPS version 14.2
7	Equipment Code	AWIPS
8	Serial Number	001
15	Comments	Downloaded and installed IFPS version 14.2 I.A.W. AWIPS Application Installation Instruction Note 3.
17a	Mod. No.	AS3

A sample EMRS report is provided as attachment A.

? Mark S. Paese
Signature Not Verified

Digitally signed by Mark S. Paese
DN: cn=Mark S. Paese, o=DOC/NOAA/NWS, c=US
Date: 2003.09.09 11:29:10 -04'00'

Mark S. Paese
Director, Maintenance, Logistics, and Acquisition Division

Attachment A - EMRS Report Sample

Attachment A - EMRS Report Sample